

The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

Paper No. 15

UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte SOON-CHEOL SHIN
and
SANG-SHIN CHOI

Appeal No. 2003-0279
Application No. 09/644,795

ON BRIEF

Before ABRAMS, STAAB, and NASE, Administrative Patent Judges.
NASE, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 5 to 15,
which are all of the claims pending in this application.

We REVERSE.

BACKGROUND

The appellants' invention relates to a flat cathode ray tube (CRT), and more particularly, to a tension mask frame assembly having an improved frame for supporting a tension mask having a color distinction function (specification, p. 1). A copy of the claims under appeal is set forth in the appendix to the appellants' brief.

Claims 5 to 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over the appellants' admission of prior art (specification, pages 1-2; Figure 1) relating to a tension mask frame assembly of a flat CRT (Admitted Prior Art) in view of U.S. Patent No. 6,268,688¹ to Tani et al. (Tani).

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellants regarding the above-noted rejection, we make reference to the answer (Paper No. 11, mailed July 26, 2002) for the examiner's complete reasoning in support of the rejection, and to the brief (Paper No. 10, filed July 1, 2002) and reply brief (Paper No. 12, filed September 24, 2002) for the appellants' arguments thereagainst.

¹ Issued July 31, 2001.

OPINION

In reaching our decision in this appeal, we have given careful consideration to the appellants' specification and claims, to the applied prior art, and to the respective positions articulated by the appellants and the examiner. Upon evaluation of all the evidence before us, it is our conclusion that the evidence adduced by the examiner is insufficient to establish a prima facie case of obviousness with respect to the claims under appeal. Accordingly, we will not sustain the examiner's rejection of claims 5 to 15 under 35 U.S.C. § 103. Our reasoning for this determination follows.

In rejecting claims under 35 U.S.C. § 103, the examiner bears the initial burden of presenting a prima facie case of obviousness. See In re Rijckaert, 9 F.3d 1531, 1532, 28 USPQ2d 1955, 1956 (Fed. Cir. 1993). A prima facie case of obviousness is established by presenting evidence that would have led one of ordinary skill in the art to combine the relevant teachings of the references to arrive at the claimed invention. See In re Fine, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988) and In re Lintner, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972).

The appellants argue that the applied prior art does not suggest the claimed subject matter. We agree.

The Admitted Prior Art shows a tension mask frame assembly of a flat CRT. The tension mask frame assembly includes (1) a frame 10 comprising two support members 11, 12 spaced from each other, each of the support members having a fixing portion and a flange portion; and two elastic members 13, 14 each having opposite end portions fixed to the support members for supporting the support members; and (2) a tension mask 20 having opposite edges fixed to the fixing portions of the support members in a state when the tension mask is being stretched in a stretching direction by a tensile stress tending to move the opposite edges of the tension mask away from each other.

Tani's invention relates to a color cathode ray tube having a shadow mask 30. As shown in Figures 1 to 4, the shadow mask 30 comprises a substantially rectangular mask body 34 and a substantially rectangular mask frame 38 to which a skirt portion 33 of the mask body is attached. The substantially rectangular mask frame 38 has a side wall portion 36 having a pair of short side walls 40 opposing to each other and a pair of long side walls 41 opposing to each other. A curved inward protrusion 37 is protruded from the edge of the side walls as shown in Figure 4. Edges 40a of the short side walls 40 are arc-shaped so as to correspond to the shape of the main surface 31 of the mask body 34. Therefore, each short side wall 40 is higher at a central portion thereof than at the ends of the side wall portion 36. On the other hand,

over 80% of the length of each long side wall 41 except both end portions thereof is cut off. Thus, each long side wall 41 is lower in a central portion than in end portions.

After the scope and content of the prior art are determined, the differences between the prior art and the claims at issue are to be ascertained. Graham v. John Deere Co., 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966).

Based on our analysis and review of the Admitted Prior Art and claims 5 and 7, the independent claims on appeal, it is our opinion that the Admitted Prior Art shows all the subject matter of claims 5 and 7 except for (1) the flange portion of each of the support members having a width, as measured in the stretching direction, decreasing from a central region of the flange portion toward opposite ends thereof, thereby limiting a capability of a central region of the frame, which corresponds to the central regions of the flange portions, to deform in the stretching direction as set forth in claim 5; and (2) each of the support members having a deformability in the stretching direction which increases from a central region of the support member toward opposite ends thereof and the fixing portions of each of the support members being curved away from the other support member in the stretching direction as recited in claim 7.

In our opinion there is no suggestion, motivation or incentive for a person of ordinary skill in the art at the time the invention was made to have modified the Admitted Prior Art based on the teachings of Tani to arrive at the claimed subject matter. In that regard, while Tani does have a curved inward protrusion 37 protruding from the edge of the side walls 40, 41 of the mask frame 38, we fail to discern any rationale as to why such a curved inward protrusion would have been applied to the non-curved flange portions of the support members 11, 12 of the Admitted Prior Art. This is especially true due to the disparate nature of the Tani's mask frame 38 from the Admitted Prior Art's tension frame 10. In our view, the only suggestion for modifying the Admitted Prior Art in the manner proposed by the examiner to arrive at the claimed subject matter stems from hindsight knowledge derived from the appellants' own disclosure. The use of such hindsight knowledge to support an obviousness rejection under 35 U.S.C. § 103 is, of course, impermissible. See, for example, W. L. Gore and Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1553, 220 USPQ 303, 312-13 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). It follows that we cannot sustain the examiner's rejections of claims 5 to 15.

CONCLUSION

To summarize, the decision of the examiner to reject claims 5 to 15 under 35
U.S.C. § 103 is reversed.

REVERSED

NEAL E. ABRAMS
Administrative Patent Judge

LAWRENCE J. STAAB
Administrative Patent Judge

JEFFREY V. NASE
Administrative Patent Judge

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